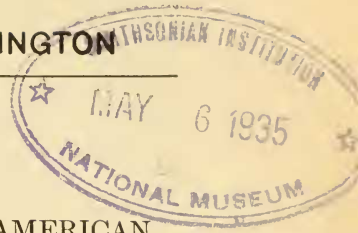


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON



GEOGRAPHICAL VARIATION IN THE AMERICAN
TITLARK.

BY W. E. CLYDE TODD.

At the meeting of the American Ornithologists' Union in New York in 1925 I presented a brief informal paper under the above title, calling attention to two heretofore unrecognized races of the American Titlark or Pipit, then known (and I still think properly so) as *Anthus rubescens*. With additional pertinent material now available, the time has come for a formal description of these new forms. I am greatly indebted to Dr. Joseph Grinnell of the University of California Museum of Vertebrate Zoölogy, and to Mr. Jesse D. Figgins of the Colorado Museum of Natural History, for the loan of specimens for comparison.

The western race of this species I propose to call

***Anthus rubescens pacificus*, subsp. nov.**

WESTERN PIPIT.

Type, No. 115,833, Collection Carnegie Museum, adult male; Red Pass (6000 feet), British Columbia, June 20, 1934; George M. Sutton.

Subspecific characters.—Similar to *Anthus rubescens rubescens* (Tunstall) of eastern North America, but lighter-colored throughout, the upper parts paler, and the under parts also paler, buffy rather than vinaceous.

Range.—Western North America, breeding from Alaska southward along the Rocky Mountains to Oregon; in winter to California and Mexico.

Remarks.—Western birds of this species are readily separable from eastern specimens by their uniformly lighter coloration. In fall plumage the difference in color is that between Saccardo's umber and sepia of Ridgway's "Color Standards," and is well marked when series of the two lie side by side. It holds also when spring and summer birds are used for comparison. While certain odd specimens of the western bird may be matched approximately by individuals of the typical eastern race, the differences between the two in series stand out very well—as well, indeed,

as do those distinguishing the western races of either *Spizella arborea* or *S. pusilla*. These differences are best shown by birds in fresh unworn breeding dress (May), which are decidedly buffy below, while specimens of *rubescens* in corresponding plumage show a more or less vinaceous tinge on these parts. The upper parts in general are more sandy brownish, less decidedly grayish, than they are in *rubescens*, while the wings and tail, which in the latter are dusky black, are dusky brown instead. In worn breeding dress (July) there is not nearly so much difference in the color of the upper parts, but the wings and tail remain browner in the western race, and the under parts are whiter, since the buffy tinge seems to fade out more than the vinaceous of the eastern birds. In fresh winter and immature specimens (late August and September) we find the differences between the two races still well marked. Brewster¹ remarked the different color of his specimens from the Cape region of Lower California, but considered that the differences were neither "pronounced nor constant." But with an unusually good series of eastern birds available for comparison I consider that the characters I have pointed out are decidedly of sub-specific value. All the synonyms of the species appear to belong to the eastern race, leaving the western one to be named.

The above remarks are based on the examination of a series of twenty-seven spring and summer specimens from British Columbia and Alaska, as compared with a large series of eastern birds. Twenty-five fall and winter specimens of the new form have also been seen.

The second form may be known as

***Anthus rubescens alticola*, subsp. nov.**

ROCKY MOUNTAIN PIPIT.

Type, No. 16,748, Collection Carnegie Museum, adult female; Estes Park, Colorado, July 20, 1893; Richard C. McGregor.

Subspecific characters.—Similar to *Anthus rubescens pacificus* nobis of the northern Pacific coast region, but with the under parts in the breeding season more richly and more uniformly buffy, with little or no dusky streaking. (This is *not* a matter of wear!)

Range.—Breeding at suitable altitudes in the Rocky Mountains of Colorado and probably of other States, but the exact limits of its range otherwise unknown.

Remarks.—The distinctive characters of our two specimens from Estes Park are fully confirmed by the larger series (eight specimens) examined from several other localities in Colorado (Barr; Geneva Park, Park County; Mount Bross, near Alma; Alice; Moffat County), and which are preserved in the Colorado Museum of Natural History. Indeed, the new form appears upon comparison in series to be more distinct from *pacificus* than the latter is from *rubescens* itself. That it has not been detected heretofore must be because too much importance has been attached to individual variants which occasionally approach it in their characters, although coming from within the range of the other forms. The Colorado breeding bird, as

¹ Bulletin Museum Comparative Zoölogy, XLI, 1902, 193.

indicated by the material examined, is peculiar in the more uniform appearance of the under parts, the streaking being reduced to a minimum, while the buffy color is at the same time more pronounced. This is a constant feature in the series examined. Although the amount of streaking varies in both *rubescens* and *pacificus*, as already remarked, breeding birds of these forms, taken as a series, are quite distinct from breeding birds of the present race in respect to this character, as well as in respect to the color itself, which is between the pinkish buff and cinnamon buff of Ridgway. There is thus abundant ground for the recognition of a Rocky Mountain breeding race, and the circumstance that occasional individuals from other parts may show its characters to a greater or less extent is just what might be expected. In size the new race averages a little larger than either *rubescens* or *pacificus*. The discrimination of non-breeding examples has not been attempted; it may prove to be difficult.